What is Claimed:

- 1. A radial power divider/combiner comprising:
 - a first antenna disposed at a center of a substrate, the substrate having a periphery;
- a plurality of waveguides extending in a direction from the center of the substrate to the periphery thereof; and
- a plurality of second antennas disposed around the periphery of the substrate, each said second antenna disposed near a respective end of a respective one of said waveguides.